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## ABSTRACT

For the past 4 years, Alpena Community College, in Michigan, has participated in the Workplace Partnership Project (WPP), a federally funded grant program designed to provide literacy skills to individuals currently employed but lacking the background to keep pace with the changes of the modern workplace. The process for establishing classes at a site is designed to empower students as much as possible, establishing an advisory group to represent the concerns of everyone in the process, preparing directly applicable materials, and involving students in their own evaluation and assessment. The learner-driven curriculum is based on the premise that students know more about what they need to learn than the instructor does, and by listening, the instructor can offer them the relevance they have not found in traditional educational settings. Adult learners are results oriented, have little patience for bureaucracy, and may not have had positive experiences with education in the past. In order to be effective, workplace educators must overcome initial worker skepticism, and be prepared to scramble to prepare materials for the student-driven agenda. The instructor then becomes a facilitator, encouraging workers to be responsible for their own learning. Some WPP classrooms have undertaken efforts to improve their workplace and presented proposals developed in class to management. The program has shown that when students are empowered, they are just as concerned with workplace improvement as management. (KP)

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## EMPOWERING WORKPLACE STUDENTS: A PRACTITIONER'S CHALLENGE

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Paper presented at "Workforce 2000", the Annual Conference on Workforce Training of the League for Innovation in the Community College (3rd, San Diego, CA Feb 8-11, 1995)

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## EMPOWERING WORKPLACE STUDENTS: A PRACTITIONER'S CHALLENGE

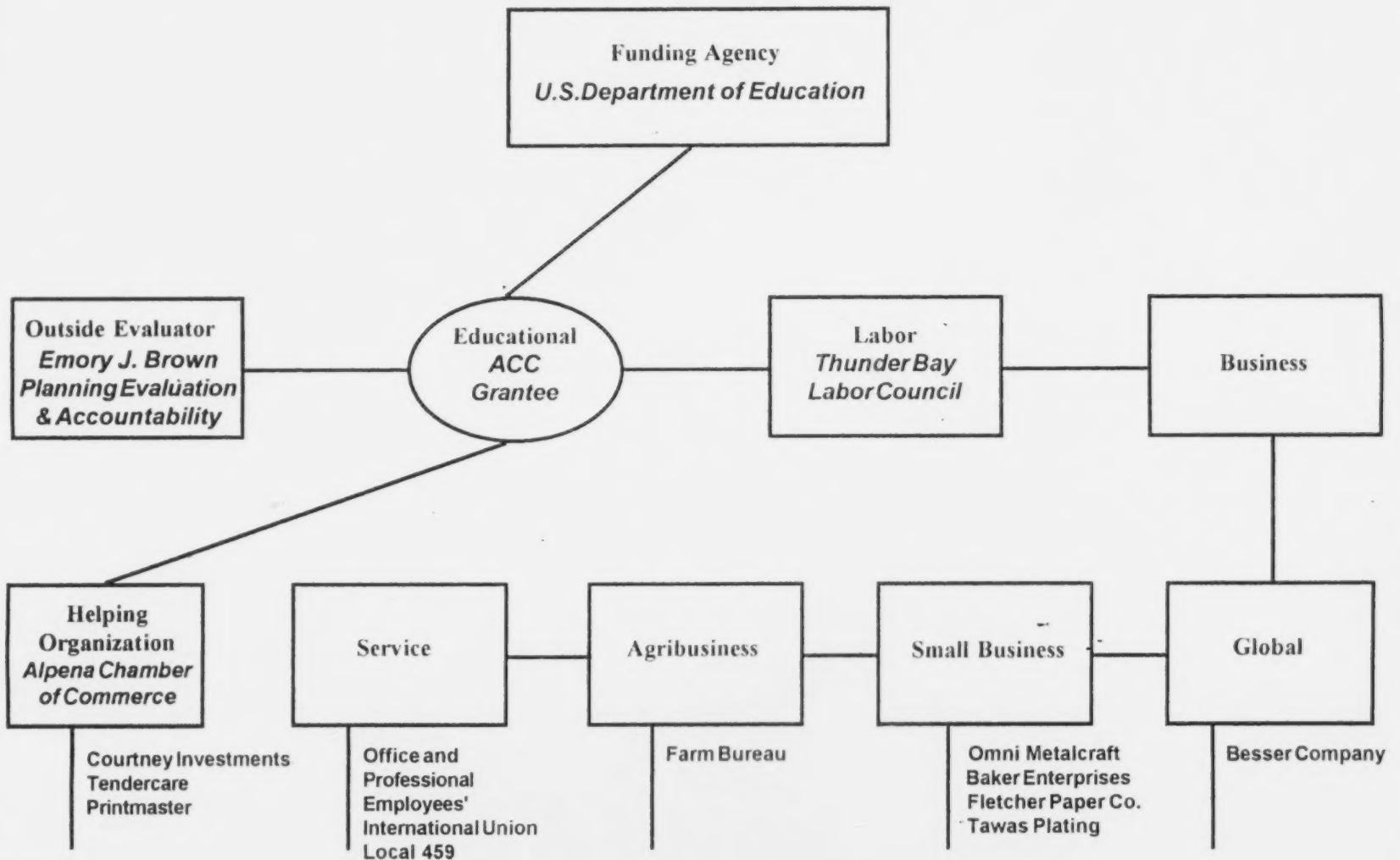
*"We all know where most of the creativity, the innovation, the stuff that drives productivity lies--in the minds of those closest to the work. It's been there in front of our noses all along while we've been running around chasing robots and reading books on how to become Japanese, or at least manage like them."*

[John Welch, chairman of GE]

For the past four years Alpena Community College has been participating in The Workplace Partnership Project, a grant program funded through the U. S. Department of Education. The project is designed to provide literacy skills to those currently employed but lacking the background to keep pace with the ever-changing demands on the modern workplace. The classes are highly situation specific, since the needs are as varied as the settings. Classes are offered at the worksite, and companies are asked to provide "in kind" support in the form of classrooms and release time. Some companies have chosen to offer their classes during the regular workday, while others have chosen to hold them after working hours. Some organizations provide full pay while students are in class, while others split the time invested with the students. Since the project is Federally funded, we provide the classes at no additional cost to the companies or the students involved. No college credit is given upon completion of the courses, and "grades" are awarded strictly on a pass/fail basis.

Our students produced a wealth of insights in adult literacy learning in the workplace. The chart below outlines the organization of the various components of our project:

## Project Funding and Organizational Flow



Classes begin with an investigation of the needs of particular business involved as well as those of the prospective students. In places we've worked before, where a track record has been established and we have a working knowledge of the present and future literacy needs of the workers, setting up a workplace class can be a fairly smooth process. We set up a class matching an instructor to the expectations of the men and women who will take the class, and then find a mutually agreeable time and site for the class to be taught. But if we've never worked there before, the process becomes much more complicated. It becomes a matter of working through the many details that need to be nailed down in order for the class to succeed. Below is a working checklist we use to cover the key start-up concerns:

1. Preliminary dialogue with key players in the organization, including management and labor if the workplace is unionized.
2. Set up an advisory group that will represent the concerns of everyone.
3. Discuss issues such as curriculum, recruitment and scheduling with this advisory group.
4. Tour the workplace and learn as much as possible about the tasks the workers do as well as the educational needs they have now and will have in the future.
5. Prepare materials or scenarios that directly apply to their specific workplace, then build curriculum that addresses the needs identified by the advisory team, the workers and the instructional team.
6. Work on a flexible pedagogy; look for ways to build upon the knowledge and experience workers bring into the classroom.
7. Involve the students in their own assessment and evaluation. Look for creative ways of measuring the impact of workplace classes on individual and organizational performance.
8. Document relentlessly.

Thus, our current focus is to establish a working dialogue with the potential recipients of our services, ask questions that allow them to share their needs and knowledge with us, listen, then move quickly to develop a substantive class based around mutually-identified issues, concerns and opportunities. Our experience has been that if we empower learners, they will prove themselves worthy of that power; they will turbocharge the educational process.

## OVERCOMING MINDSETS

Clearly educators are going to have to take a page from their own book of rhetoric and rethink their pedagogy if they hope to maintain credibility with the student and business communities. Education, like industry, must keep pace with advancing technology and social reforms. The sweeping cultural changes now taking place in the workplace are putting demands on educators that go well beyond their traditional classroom training. Such changes are placing demands on workers that go beyond their training as well. The current emphasis is on continuing education, on learning how to learn.

The idea of education in the workplace is not a new one, though unfortunately, it is not old enough. But we now have organized movements afoot [TECH Prep, School to Work Initiatives, etc.] to connect all areas of learning to "real world" uses, and that's obviously a good thing--as long as we can reach agreement on just what students should know, as long as we listen to the right people.

That's where the Workplace Partnership Project comes in. It is in teaching these classes that I can confidently say that I've gotten some of my best education. I think I speak for all of us who instruct in WPP classes when I say that our students are providing us with a very valuable learning experience. All of us connected with this project are finding out about the demands of the modern workplace, and our students want us to respond to their needs. If we fail to meet their expectations, we find ourselves facing a lot of empty seats when our next class meets. This is not a captive audience bound to chairs by degree requirements or truancy laws. Nor is it a passive audience; they are quick to let us know if we stray from pragmatics.

Workplace students are living proof of today's need for continuing education. They have become aware that they cannot rely on what they knew yesterday to sustain them into tomorrow. Not only do they impose this paradigm upon themselves, but they also impose it upon us. They compel us to change the ways we teach, to reevaluate our own processes, materials and content. They drive us to find out what the twenty-first century will demand of workers. They force us to keep abreast of what is happening in business and industry--locally, nationally and internationally. And they are going to help us change education. I see the students in the WPP classes as a rich resource for educational change.

Admittedly, education has been too slow to respond to the dynamic needs of the modern worker. There are some reasons for that; each employer, each employee, each workplace holds a different view of what changes should be made and which

outcomes should win top priority. While we in the WPP can go into each class and use student input to match specific objectives with a particular workplace, high school and college instructors don't have this luxury. They face the frustration of trying to prepare all students for all things, and they aren't getting consistent feedback on just what those "things" are. They're facing an impossible task, unless we can all come to an agreement on educational outcomes. Education must now be viewed as a process, a matter of finding out what students don't know, determining what they need to know, and then teach them how they can learn it. We need to face the reality that education is not something that is done to people. No one can "learn" people everything they need to know, forever, especially when what they need to know keeps changing.

Students and teachers can keep reminding each other that education is never complete, that what we learn today will not serve us forever. Like those in the WPP classes, educators must continue to learn and to change. It means that whatever we decide to do now isn't going to be good enough a few years from now, because things will be in place in the next decade that nobody is able to foresee, just as there are things now taken for granted that didn't exist, even in anyone's mind, 10 years ago. But trying to keep up is a whole lot better than trying to catch up. With a collaboration between educators, business, industry and the community at large, we can come to some agreement on what skills are necessary for lifelong learning.

For far too long, academe and business have polarized education and the workplace into separate entities. It isn't that either group was unfamiliar with continuing education; it had more to do with the fact that most people envisioned workplace education as "hard" training driven by new technology, learning new procedures or how to operate new machinery. But given the fact that most people fail at their jobs because of their inability to get along with others [or "attitude"] rather than lack of technical skills, organizations and educators could do well to consider the benefits of providing more communication and/or problem-solving classes in the workplace.

Business people are providing workers at every level with a myriad of technical skills, but production still lags because their employees lack those people skills necessary to foster the cohesive work environment that will allow them to apply those skills to their full potential. Certainly the connections between good communication and improving the work environment are much less direct than right angle trigonometry or CAD operations. Although managers and production workers both recognize that employee "attitude" and "motivation" are serious problems, they don't see classes in communication and problem-solving as first line

means of improving productivity. They are skeptical that educational institutions can deliver anything directly applicable to their workplace; in particular, they see their problems as unique, beyond an outsider's comprehension. As one student put it, "When I heard we were going to have a class in communications, I pictured this uptight, stuffy professor coming in here to have us read Shakespeare and write a bunch of papers or something. I was relieved when it wasn't like that at all. It was nice to find out that you were going to listen to us for a change and deal with our problems here."

The above student's response is a typical one. As teachers, many people consider us "book smart" at best, but they see our world as sheltered, and they have little confidence in our "real world" experiences. School itself is suspect; many people have exaggerated the contrast between school and the real world to point that it has created within them serious questions of pragmatics. They don't expect that schools can offer them information of practical value in the world of work. How often have we heard, "I didn't learn nothin' in school"? Such students struggled to get through the hoops placed before them and got out; they did their penance and they want their efforts to last them a lifetime. Their past experiences with school may have involved learning about things very different from the worlds they lived in or pictured ahead of them in the world of work. They had little confidence in what they already knew and even less confidence that what they knew would be valued in an educational setting. What they were really calling for is the learner-driven agenda.

The learner-driven curriculum is based on the premise that students know more about what they need to learn than the instructor does, and if we listen to them we can offer them relevance that they have not found in "traditional" educational settings. In a learner-driven classroom, we see our first task as finding out what they want/need to learn, and our second task as finding the resources to deliver it. Neither of these is easy. Traditional educational pedagogy has conditioned them to be passive learners, and they view the teacher as little more than a disseminator of information, an upright textbook. When I walk into a class and tell them that I have no set agenda, that I will deal with what they feel is most important, they wonder what is wrong with me, why I, as the "expert," don't know what I'm doing. What I try to promote is the notion that they know what they're doing and I will try to help them find ways to overcome the obstacles that prevent them from doing things as well as they would like to do them. I have come to realize that I don't have to know their jobs--they do. It isn't what I teach; it's what they learn that matters, and there is no one-to-one relationship between the two. So I spend time asking them how to apply what we are learning to

their workplace, and they are quick and happy to do that. In essence, I turn the paradigm around on them; they tell me what they do. Then, together we tailor resources to their needs, and they make the applications by solving specific problems in their workplace. In class we model good communication and problem-solving principles as we deal with a student-selected situation while familiarizing students with the processes that were used. Students then apply these processes to other situations confronting them in the workplace. They are obliged to make the applications and the instructor serves as a facilitator rather than as a dispenser of information. In such pedagogy, questions of pragmatics disappear.

### "US VS. THEM"

We walk a delicate line when we set up classes on someone else's turf. Many organizations have yet to abandon the old pyramid, top-down, paternalistic management styles that have fostered much of the polarization that has plagued industry in the past. Some managers still hold the belief that employees must be kept under the watchful eye of supervision or workers will do something disruptive to the financial welfare of the company; such managers feel workers can't be trusted to make good decisions, or at least unselfish ones, and they are very uncomfortable with empowering students in our classes. Interestingly enough, when supervisors enroll in a class, the opposite assumption is often made. Managers presuppose that supervisors will be much more responsible when establishing goals and agenda for classes or for the company. It's as if professional responsibility rests with the title rather than the individual. Clearly, our students have debunked such myths. Our experiences have shown that employees at virtually all levels are anxious to find ways to impact their work environment in positive ways. We have found the American work ethic alive and well, when workers have been encouraged to exercise it.

Production workers likewise greet us with a certain inherent skepticism; we often face a somewhat hostile audience that first session. Many of our students have grown to distrust management, and since we traditionally talk to management first, they often ask "what we have been told" to cover in class. They are understandably skeptical when we walk in and tell them that they will determine the content of the course. Our students may even view us as propaganda agents, coconspirators with some ulterior, hidden agenda. It takes time to gain the rapport necessary to find out the real issues of concern to them. There are usually some pretty sullen faces that first day.

One of our first tasks is to convince the students that what is said in their classes is held in confidence until

everyone agrees it should come out. This is much easier at some facilities than it is in others. I've worked in places where the students came in and vented their true feelings the first day of class, with their supervisors sitting across the table from them; I had another class that went through the entire term and time ran out before I felt we could get to the meatier matters that needed to be addressed. Typically we inherit some company politics and history that powerfully influence our effectiveness, and sometimes we can overcome them, sometimes we can't. Sometimes we are never really made privy to them. However, the fact that we are asked to come in at all suggests that people are looking to make some changes, so most often we can get people to start where they are and work toward where they want to be.

#### **BECOMING FLEXIBLE:**

Basically, we must remember that our older, working students chose to enter the workforce rather than go to college. Chances are education was not an especially positive experience for them or they would have been comfortable staying in that environment after high school rather than going to work.

Adult learners are also very result oriented students. They want to see direct applications to their work situations, today, when they leave the class. They have little patience with bureaucracy and none with theory. But that also turns out to be one of the real positives of working with these students. In traditional classes, students, the most conscientious ones that is, end up storing most of what we teach them for future use, and they aren't sure what, if anything, will be needed later in life. But in our WPP classes, students are keenly aware of what they can use, and if we can match our materials with their needs, motivation isn't an issue.

However, after working with the learner-driven agenda for the last several years, I can easily understand why many educators are reluctant to stay with it. Frankly, it equates to an highly elusive agenda and many educators are unnerved by the lack of a predetermined curriculum. It means that long term planning and established course outlines give way to the immediate concerns of the group. It means we must customize everything we do. We usually find ourselves scrambling after each class in order to prepare the materials for the next one. Indeed, the student-driven agenda makes for some planning challenges that never go away. And after all of our efforts, seldom do we get any second chances. As most teachers know, the first time through a lesson is the most difficult, but in these classes, the first time may be all we get. We may spend

hours researching materials for a particular topic, knowing that it could never be used again. On the one hand we could be discouraged by this, but on the other, it is exciting; we never have time to grow complacent or to stagnate.

I often prepare two and a half hours of material for a two hour class and not get to any of it. A student will bring up a problem and the class will take off in an entirely different direction from the one I expected. Then I have to be able to adapt the materials to fit the new situation and extemporaneously speak to the issues at hand. That is why I have made a practice of attending a variety of business seminars and have built a fairly large library of relevant materials. I feel it is important for me to know what is being said and done in the way of continuing education in business and industry. I feel we must keep abreast of what is being said out there.

What all this does is change the role of the teacher from that of a dispenser of knowledge to one of a facilitator, a resource person who tries to make people responsible for their own learning. We typically have four to eight weeks in which to attempt to change people and their work environments. Realistically we know this isn't enough time to make a significant "life changes" in our students or in the organization. So we recognize that the things we can put in motion are more critical than what we accomplish by the end of the class. Thus we subscribe to the process approach, modeling what we are trying to put across by using specific workplace problems/projects as a prototype for what they can practice on their own once we have finished with the course work.

#### **EXAMPLES OF STUDENT PROJECTS:**

Following are some of the projects various classes have undertaken in an effort to impact their workplaces. Each served as a model for the communication and problem-solving processes they were to practice on their own once classes were completed. These projects came about after many hours of collaboration and consensus building in classes. After the plans were completed, proposals were presented to management in an effort to initiate a more productive dialogue between production workers and supervision. In follow-up assessments, we found that those managers who put workers' proposals in place have seen an improvement in both morale and production indicators [see ERIC #ED367387].

*Employee Progress Reports:* a periodic job review system that facilitated feedback on how employees [both production and supervision] were doing. They were careful to illicit both the positive and the negative comments on the person's performance. This project involved creating the forms

themselves as well as the implementation system. Self-ratings, co-worker ratings, and supervisor ratings all were components of the review. Each review is then followed by a thirty minute discussion of the results, involving all those who participated in the review. The system has provided a regular, organized feedback system, particularly regarding positive aspects of performance, which workers feel has helped improve morale and teamwork.

**Quality Circles/Think Tanks:** a vehicle for regular employee involvement in workplace problem-solving. In two facilities, these had been tried and failed in the past, though both production and management agreed they were "a good idea." The students were able to reestablish these without interrupting the production lines, a common impediment to such meetings in the past. Students created time lines and contingencies to insure that the meetings were held on schedule, as well as a means for all employees to become involved in the suggestions and improvements discussed. They then added an incentive program for those coming up with good ideas.

**Hiring Procedures:** students at two facilities expressed concern over the high turnover rate among new employees. Recognizing this as a symptom rather than the problem, they developed more consistent criteria for hiring new people and a "mentor" training system for the first few weeks on the job. They worked through the complexities of covering all departments and work responsibilities, and put a workable system in place. New worker turnover was decreased, although specific statistics were not kept.

**Communication Flow Chart:** one class tackled the difficulties of keeping everyone in the plant informed about the many daily changes and adjustments that had to be made in the production process. They created a "communication flow chart" that identified just who was responsible for passing the information to whom, insuring that everyone was informed. The rate of part rejection was decreased by 39%.

**Attendance Incentives:** at one facility, attendance had become a conflict and morale issue. When people were gone, it naturally created more pressure on the others. As a result, they developed some consistent, positive incentives for attendance to replace the negative reinforcement that had been used in the past. Absenteeism decreased slightly [17%] in the first two months, during the holiday season.

**Upgraded Safety Committee:** since they were dealing with some volatile chemicals, one group felt that there was a need to change the personnel and procedures of the safety committee to ensure every department was represented. They saw that all equipment and procedures were familiar to all employees.

**Improved Safety Training:** new hires at one plant were getting "generic" safety training, but it wasn't specific to this particular facility. They decided to make their own "safety training video" covering the hazards and safety procedures. Although they are still working on that, they hope to complete it yet this spring.

**Production Process Changes:** one class put some thought into time and motion on the production line, and decided that by elevating the parts they had to rack, they would have less wasted motion, faster production and fewer backaches. Before they could put this system in place, they had to overcome several quality control obstacles that had prevented this problem from being solved in the past.

**Job Site Survey:** one organization wanted to send the workers most directly involved in the production of specialty orders directly to the customer's worksite to look at physical layout and determine just what would be involved. To be sure that the right questions were asked, workers collaborated on a "Job-Site Survey" that everyone could use. This will allow more people to visit sites with the confidence that they won't overlook an important phase of the project.

**Process Flow Chart:** as they developed a new method of production, managers recognized that workers would have to become familiar with the self-directed work team concept. One of the first tasks the group undertook was a process flow chart, outlining each step of the production process. Since no one there had experience with the new machinery and methods, the class had to create the most efficient ways to integrate them. They had to determine a variety of contingencies and the points in the production process where each procedure would best be completed. They also had to do a great deal of predictive problem-solving in order to create a reasonable production flow. This group faces many more problem-solving tasks, but their experience with the flow chart helped make everyone familiar with each operation as the parts move down the production line. They are confident they can handle the new challenges as they come along.

**Conflict Management:** as more and more facilities are experimenting with self-empowered teams, there is a need for conflict management. When teams begin to collaborate on decisions, they need the skills to foresee the conflicts that can develop as changes are made. Many classes work on proactive conflict management, seeking ways to avoid conflicts rather than struggle with them once they have surfaced.

It is clear that the students in each of these classes have effected some dramatic positive reforms in their workplace. It is also clear that these people have not sought selfish or short-sighted personal gains. What they accomplished has well served both production and supervision and will continue to do so in the future. But the most significant consequence, as I see it, is that in the process of solving the above problems, they have learned that they have the means and the power to solve many of the problems they only complained about in the past. There have been some very impressive production and quality control statistics supporting the notion that the improvements they made also helped make the company more productive and profitable. They have made it clear that improving the work environment improves the company, and the ones who can best solve production problems are the ones closest to them.

Perhaps the process flow chart could serve as a metaphor for how some of these projects came about. In this company, managers wanted to try the self-empowered work cell concept. While this may not seem very new and revolutionary to most of us, it is a step that only can be measured in light years in this particular company. The philosophical change was provoked by smaller companies who were able to supply parts to customers in a more timely manner than the subject company could, and the parts trade comprised up to 40% of their business. To recoup the lost business, managers established the following goals:

- . develop a new, faster production process
- . decrease the shelf time of components to the parts being produced
- . have workers follow the product from start to finish and be able to perform any process involved
- . make each worker aware of what is done at each stage of the production process
- . instill ownership in workers so that they could take pride in the final product

With these loose parameters, the workers in the new department began their technical training on recently purchased new equipment. Along with this, workers also began to undertake "soft" training in communications and problem-solving to better enable them to manage their new department on their own. As their communication and problem-solving class progressed, the students soon realized that they would have to develop a system to manage the new technology and processes, one that would provide for the most efficient use of both man and machine. They began by assessing the contingencies and the obstacles they had to face as they developed their optimal procedure plan:

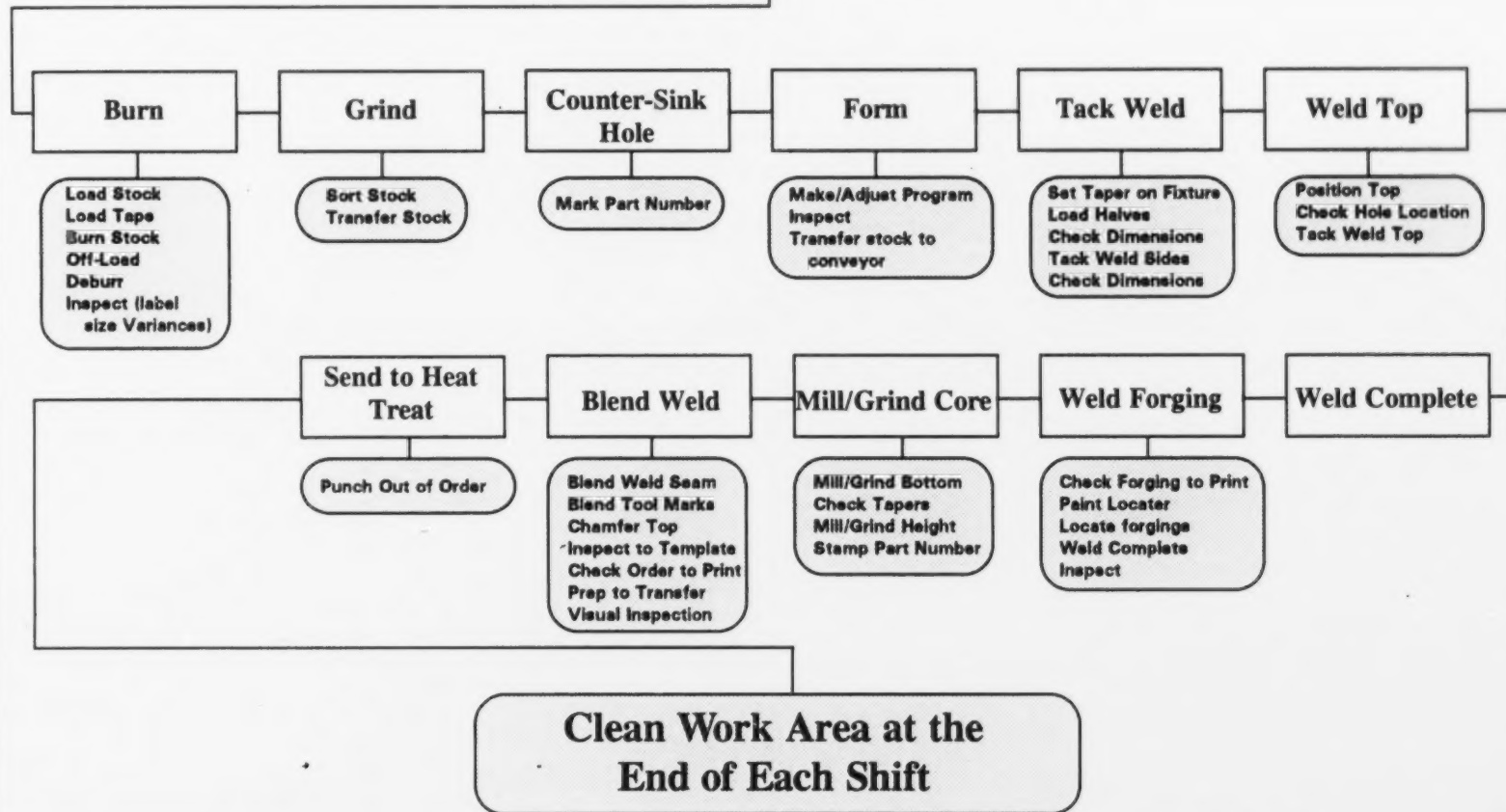
- . Since no one had any experience with the process, they had to establish it from scratch, and it would be different from any that they had experienced before and unlike any other in the plant.
- . The first step was to identify each stage of the new production process.
- . They had to decide the stages each procedure would be most efficient and productive.
- . They had to develop time lines and contingencies as they went along.

This chart took at least ten revisions. They kept coming back to class with better ways of doing things as they gained experience with the equipment and processes. It isn't finished yet, and perhaps it shouldn't ever be--they should continue to reflect upon the things they are doing and look for better ways of doing them. They plan to break some of these processes down further and create more detailed flow charts for specific operations. But it is clear that in the process of making this one, they have grown confident that they will be able to make others. This project is likely one of the most significant things the group did; since they must manage their own work cell, they all needed to understand the procedures necessary to create a product that both internal and external customers will find satisfactory. This is especially true of the internal customer, since in other areas of the plant, workers in the later stages of production "inherited" many problems created by poor production practices up the line from them. For example, when the man burning the raw sheet metal parts uses up the tolerances, that leaves no margin of error for the people on the press or for the assembly welders.

The exercise was an excellent learning experience, from both the collaborative and the problem-solving perspectives. They made decisions together and learned how to come to consensus, even though they seldom reached total agreement. They learned to make concessions and unselfish decisions that everyone could live with, for the good of the group, for the good of the customer. The whole process was surprisingly smooth. The chart is included here to give the reader an sense of the many decisions that had to be made as it was developed.

# CORE CELL PROCESS FLOW CHART

Inspect and Service Machines at the Beginning of Each Shift



**STUDENT COMMENTS:** [or] "If you want to know about the cure, ask the patient, not the doctor." [Anonymous]

At the end of each workplace class we ask for feedback on how things went, what they liked, what we could do better next time. By this time our students usually have grown painfully candid with us and we get honest, valuable input from them. Overwhelmingly our students have praised the learner-driven agenda. They like the idea of having a voice in what is done in the class. Other comments are listed below:

I think it would be helpful to have the entire shop go through this class. There are a lot of guys in the shop who have some good ideas I know they would like to express.

I think the open idea of picking your own problem to solve or work on is a very good idea and helps to involve all members of the class. It shows you how a group of people should and can work together to accomplish a goal.

I thought the classes were a good idea after I was in one. At first I questioned the purpose of the classes but now I can see the value of them if upper management is really serious about bettering the workplace.

The course has improved cooperation between the members of the group. Attitudes have become more positive.

It was good to see classes like this get started. Let's hope they will continue.

It was good for us to discuss issues from everyone's point of view and reach a satisfactory agreement between everyone before we moved on. I have a more positive attitude my opinions and ideas will be heard, not ignored.

Specific problems were addressed and possible solutions were thought up. We were able to say what was on our minds but not talk about the person.

I think our project will have a real positive effect on the plant.

It was good to find out the company is now aware of the problems in the workplace. It got the workers involved in the issues.

I really didn't know what to expect from this class, but so far I have found that there is a way to make changes without getting mad and frustrated.

I thought the class was just going to be a brainwashing, union busting session. I like the idea that we are finally getting to solve our own problems together.

All this will be great if we are given the power to keep it going. I'm not sure management will allow us the freedom to do this on our own once the class is over.

This is a big change from the way things were done in the past. We have 90 years of thinking here that tells us we can't be trusted to do what is best for the company, the department or even ourselves.

### IS IT WORTH THE EFFORT?

Though it may not appear that way at first glance, in these classes, we have emphasized the processes over the products. Our goal was to supply students with the education and experience that would make them comfortable with continued development after the classes are completed. We feel that the best way to do that is to deal with actual problems in their work world. What we accomplish is seldom as important as how we accomplish it. Once students have been successful in solving some problems in class, they are seldom intimidated by new problems that may come up. We try to promote a clearer understanding of the concepts of the ongoing changes in the workplace and lifelong learning.

Certainly, our students have put to rest any serious questions about whether or not they are capable of assessing their own educational and workplace needs. They have made it clear that they will willingly tackle those projects that will benefit both the company and the workers themselves. Their pragmatic approaches also have helped to insure that students leave the classes better prepared to integrate what they have learned into their specific job situations.

In today's dynamic workworld, workers are keenly aware of the need for personal growth and change. They are concerned about their daily struggles and are anxious to overcome them. Their quick and perceptive responses to our questions indicated that they have mulled problems and solutions over in their minds again and again and only needed an encouraging forum, an opportunity to share them with management and each other. As one retired worker told me after he had read about what we were doing in his former workplace, "I must have had a hundred ideas on how to improve that company when I was there, but I didn't tell them a one of them because they weren't interested. I'm glad you're finally doing something for the workers there. It's long overdue." How sad for a worker to feel that way, after 32 years.

Our students have dispelled any notions that learner-directed and company-directed learning are incompatible, or at best, make for a stormy marriage. Many critics portray industry-driven agendas as agents of domestication, of sleeping with the suppressor, while others perceive student-directed agendas as the soil for anarchy. We have found neither view to be true. Our students have led us to conclude that production workers are just as anxious to improve their workplaces as managers are. In today's competitive, global economy the pyramid, top-down management style has given way to the circular, collaborative style with the customer, the real benefactor in employee involvement, at the center.

### OBSTACLES: OR DOES IT WORK EVERY TIME?

Obviously there are no guaranties for success here; under the right [or better put, the wrong] leadership, any pedagogy can go awry. Students will not be duped by some devious, hidden agenda. They likewise will not be anxious to relinquish empowerment once they have experienced the pride of ownership that goes with it. Thus, a critical factor is what happens after the classes are over. If management fails to follow through, if workers' decisions are overturned or second guessed, if policies don't change along with attitudes, or if attitudes don't change along with policies, the organization could find itself in a worse state of affairs than they it was at the outset. At best it will be no better off.

If the students in class are to apply what they have done, three things must take place in the work environment:

1. Individual attitudes and mindsets must change .
  - a. People can't say, "That's not my job."
  - b. "That's good enough" thinking must change.
  - c. People must be willing to train and learn more and take on more responsibility.
2. Organizational values must change.
  - a. From paternal to empowered.
  - b. Solving problems at their sources.
  - c. From pyramid to circle management.
3. Team concepts must be instilled.
  - a. The customer is our number one concern.
  - b. Everyone is in charge of quality control.
  - c. Doing what is best for the team is best for the individual.

Many attempts to create problem-solving teams fail because any one of the above things fails to happen. They all have to take place if the classes are to be a success.

It's exciting work. In the past, educational traditionalists have been very nervous about the ramifications of business and industry becoming a driving force for educational change. The business community felt that mainstream education would not prepare people for the demands of the modern world of work. And few people were asking the workers what they felt they needed. There certainly is no shortage of rhetoric on collaboration; but we have been spectacularly inept at applying it in education. This project has convinced us that collaboration between business, labor, and education is the best way for everyone to win. It is the best way to move into the 21st century and prepare for the 22nd.